

Claims

1. A sanitized dispensing mechanism for a vending machine, comprising:

5 (a) a receptacle attached to a vending machine adjacent to an exterior opening thereof and defining an interior chamber and a rear opening behind said interior chamber contiguous with the exterior opening of the vending machine through which rear opening an item discharged from the exterior opening of the vending machine is received into said interior chamber, said receptacle having a bottom  
10 opening below said interior chamber;

(b) a barrier mounted across said receptacle between said interior chamber and said bottom opening thereof and adjacent to said rear opening thereof and the exterior opening of the vending machine and adapted to undergo  
15 movement between receiving and dispensing positions such that at said receiving position said barrier receives the item from the vending machine through the exterior opening thereof and said rear opening of said receptacle and retains the item in said interior chamber blocking the item  
20 from dropping through said bottom opening of said receptacle whereas at said dispensing position said barrier releases the item from said interior chamber allowing the item to drop through said bottom opening of said receptacle onto a hand of a user of the vending machine; and

25 (c) an actuating device mounted adjacent to said receptacle and coupled to said barrier, said actuating device including an operating lever extending to exteriorly of said receptacle and the vending machine and adapted to be gripped and moved by the user between first and second  
30 positions to cause said barrier to move between said receiving and dispensing positions and the item to drop from said interior chamber of said receptacle onto the hand of the user.

2. The mechanism of claim 1 wherein said receptacle

includes:

5 a pair of side walls laterally spaced apart from one another, said side walls defining therebetween at lower edges thereof said bottom opening of said receptacle, said side walls defining therebetween at rear edges thereof said rear opening of said receptacle;

10 a front wall extending between and interconnecting said side walls at front edges thereof and being disposed opposite from said rear opening of said receptacle; and

15 a top wall extending between and interconnecting said side walls at upper edges thereof and being disposed opposite from said bottom opening of said receptacle, said side walls, front wall and top wall together defining said interior chamber of said receptacle.

3. The mechanism of claim 2 wherein said receptacle further includes a pair of mounting flanges attached to and extending in opposite directions away from one another and away from said rear edges of said side walls, said mounting  
5 flanges being adapted to receive fasteners for attaching said receptacle to the vending machine such that said rear opening of said receptacle is disposed contiguous with the exterior opening of the vending machine.

4. The mechanism of claim 2 wherein said side walls, front wall and top wall of said receptacle are made of a transparent material.

5. The mechanism of claim 1 wherein said actuating device further includes a pair of tracks laterally spaced apart from one another and mounted to the vending machine below said bottom opening of said receptacle and extending  
5 into the vending machine below the exterior opening thereof, each of said tracks having an elongated guide element formed thereon at an inner side thereof facing toward one another, said barrier disposed between said tracks and having a pair of opposite edges slidably

10 supported by said guide elements of said tracks such that  
said barrier is movable along said tracks between said  
receiving and dispensing positions, one of said tracks  
disposed adjacent to said operating lever and having an  
elongated slot formed through said one track and receiving  
15 through said slot a link element that couples said  
operating lever to said barrier.

6. The mechanism of claim 5 wherein said barrier is  
a door of substantially planar configuration constituting  
a false floor for said receptacle extending across said  
bottom opening thereof when said barrier is disposed at  
5 said receiving position.

7. The mechanism of claim 5 wherein said actuating  
device further includes an elongated rail attached to said  
one track and having an elongated guide channel extending  
parallel to said guide elements of said tracks and  
5 receiving an elongated rib rigidly attached to and  
extending laterally from said operating lever such that  
said operating lever is moved between said first and second  
positions thereof along a path disposed parallel to a path  
along which said barrier is moved between said receiving  
10 and dispensing positions thereof.

8. The mechanism of claim 7 wherein said actuating  
device further includes an elongated coiled spring  
encircling a portion of said operating lever and engaged  
therewith so as to bias said operating lever to said first  
5 position and said door toward said receiving position.

9. The mechanism of claim 1 wherein said barrier  
includes:

a stationary ledge fixedly mounted to said receptacle  
and extending across a portion of said bottom opening  
5 thereof; and

a movable door pivotally mounted to said receptacle

adjacent to said stationary ledge and extending across a remainder of said bottom opening thereof when said barrier is disposed at said receiving position.

10. The mechanism of claim 9 wherein said operating lever of said actuating device is attached to one of a pair of opposite sides of said door.

11. The mechanism of claim 10 wherein said receptacle is made of a transparent material.

12. The mechanism of claim 10 wherein said receptacle includes:

a pair of side walls laterally spaced apart from one another, said side walls defining therebetween at lower edges thereof said bottom opening of said receptacle, said side walls defining therebetween at rear edges thereof said rear opening of said receptacle, one of said side walls having an arcuate-shaped slot defined therethrough and disposed adjacent to said one of said sides of said door such that said operating lever extends through said slot in said one side wall; and

a front wall extending between and interconnecting said side walls at front edges thereof and being disposed opposite from said rear opening of said receptacle, said stationary ledge mounted to one of said front wall and said opposite side walls.

13. The mechanism of claim 12 wherein said barrier also includes a shaft supporting said door and pivotally mounting said door to said side walls of said receptacle, said actuating device further including a coiled spring encircling said shaft and engaged with said front wall and said door so as to bias said door toward said receiving position.

14. The mechanism of claim 12 wherein said receptacle

further includes a pair of mounting flanges attached to and extending in opposite directions away from one another and away from said rear edges of said side walls, said mounting  
5 flanges being adapted to receive fasteners for attaching said receptacle to the vending machine such that said rear opening of said receptacle is disposed contiguous with the exterior opening of the vending machine.

15. The mechanism of claim 1 wherein said barrier is a door having a pair of opposite end portions disposed in planes substantially parallel to one another and a semi-cylindrical portion extending between and interconnecting  
5 said opposite end portions so as to form a cavity into which an item is received.

16. The mechanism of claim 15 wherein said operating lever of said actuating device is attached to one of said opposite end portions of said door.

17. The mechanism of claim 16 wherein said receptacle is made of a transparent material.

18. The mechanism of claim 16 wherein said receptacle includes a pair of side walls laterally spaced apart from one another, said side walls defining therebetween at lower edges thereof said bottom opening of said receptacle, said  
5 side walls defining therebetween at rear edges thereof said rear opening of said receptacle, one of said side walls having an arcuate-shaped slot defined therethrough and disposed adjacent to said one opposite end portion of said door such that said operating lever extends through said  
10 slot in said one side wall.

19. The mechanism of claim 18 wherein said barrier also includes a pair of stub shafts supporting said door at said opposite end portions thereof and pivotally mounting said door to said side walls of said receptacle, said

5    actuating device further including a coiled spring encircling one of said stub shafts and engaged with said one side wall and said door so as to bias said door toward said receiving position.

20.    The mechanism of claim 18 wherein said receptacle further includes a pair of mounting flanges attached to and extending in opposite directions away from one another and away from said rear edges of said side walls, said mounting  
5    flanges being adapted to receive fasteners for attaching said receptacle to the vending machine such that said rear opening of said receptacle is disposed contiguous with the exterior opening of the vending machine.